

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): An object-region-data describing method for describing object region data relating to a time-series variation of an object region in video data including a plurality of frames, the method comprising:

specifying one of the plurality of frames as a reference frame and specifying at least one of object regions in video data of ~~a first~~ the reference frame ~~of the plurality of frames~~ as a reference object region;

obtaining a conversion ~~parameter~~ parameters representing coordinate conversion from the reference object region into ~~a specified~~ an object region in video data of ~~a second frame~~ non-reference frames of the plurality of frames;

approximating a time-series variation of the conversion ~~parameter~~ parameters by an approximate function; and

describing the object region data using an approximate function parameter identifying the approximate function and information on said reference object region.

Claim 3 (Canceled).

Claim 4 (Original): The method according to claim 2, wherein said information on said reference object region is bit map information.

Claim 5 (Canceled).

Claim 6 (Currently Amended): An object-region-data describing method for describing object region data relating to a time-series variation of an object region in video data including a plurality of frames, the method comprising:

specifying one of the plurality of frames as a reference frame and specifying at least one of object regions in video data of ~~a first~~ the reference frame ~~of the plurality of frames~~ as a reference object region;

obtaining a conversion ~~parameter~~ parameters representing coordinate conversion from a representative point of an approximate figure of the reference object region into a representative point of an approximate figure of ~~a specified~~ an object region in video data of a ~~second frame~~ non-reference frames of the plurality of frames;

approximating a time-series variation of the conversion ~~parameter~~ parameters by an approximate function; and

describing the object region data using an approximate function parameter identifying the approximate function and information on the representative point of the approximate figure of the reference object region.

Claim 7 (Canceled).

Claim 8 (Previously Presented): The method according to claim 2, further comprising updating the reference object region such that an error between a predicted object region in video data of the second frame obtained based on the conversion parameter and the information on said reference object region and an actual object region in video data of the second frame is minimum.

Claim 9 (Canceled).

Claim 10 (Currently Amended): The method according to claim 6, further comprising updating the reference object region such that an error between a predicted object region in video data of the ~~second frame~~ non-reference frames obtained based on the conversion parameter and the information on said reference object region and an actual object region in video data of the ~~second frame~~ non-reference frames is minimum.

Claim 11 (Canceled).

Claim 12 (Previously Presented): The method according to claim 2, wherein said reference object region is an object region in a center frame among a plurality of successive frames in which said object region exists.

Claim 13 (Canceled).

Claim 14 (Previously Presented): The method according to claim 6, wherein said reference object region is an object region in a center frame among a plurality of successive frames in which said object region exists.

Claim 15 (Canceled).

Claim 16 (Currently Amended): The method according to claim 2, wherein said conversion parameter is obtained based on the reference object region for a given frame following a frame including the reference object region, and if an error value between a predicted object region obtained based on the conversion parameter and an actual object

region of said target object exceeds a threshold value, the reference object region is updated by an object region in the given frame.

Claim 17 (Canceled).

Claim 18 (Currently Amended): The method according to claim 6, wherein said conversion parameter is obtained based on the reference object region for a given frame following a frame including the reference object region, and if an error value between a predicted object region obtained based on the conversion parameter and an actual object region of said target object exceeds a threshold value, the reference object region is updated by an object region in the given frame.

Claim 19 (Canceled).

Claim 20 (Currently Amended): The method according to ~~one of~~ claim 2, wherein said conversion parameter is recursively obtained for such frames preceding and succeeding to a center frame among a plurality of successive frames in which said target object region exists that an error between a predicted object region obtained based on the conversion parameter and an actual object region of said target object exceeds a threshold value.

Claim 21 (Canceled).

Claim 22 (Currently Amended) The method according to ~~one of~~ claim 6, wherein said conversion parameter is recursively obtained for such frames preceding and succeeding to a center frame among a plurality of successive frames in which said target object region exists

that an error between a predicted object region obtained based on the conversion parameter and an actual object region of said target object exceeds a threshold value.

Claim 23 (Canceled).

Claim 24 (Currently Amended): The method according to claim 2, wherein the object region of ~~said target object~~ is divided into a plurality of subregions; and the conversion parameter is respectively obtained for each of said subregions.

Claim 25 (Canceled).

Claim 26 (Currently Amended): The method according to claim 6, wherein the object region of ~~said target object~~ is divided into a plurality of subregions; and the conversion parameter is respectively obtained for each of said subregions.

Claim 27 (Canceled).

Claim 28 (Currently Amended): The method according to claim 2, further comprising describing either related information related to the object region of ~~said target object~~ or information indicating a method of accessing the related information.

Claim 29 (Canceled).

Claim 30 (Currently Amended): The method according to claim 6, further comprising describing either related information related to the object region ~~of said target object or~~ information indicating a method of accessing the related information.

Claims 31-36 (Canceled).

Claim 37 (New): The method according to claim 2, wherein the obtaining comprises: obtaining a conversion parameter of one of enlargement/reduction; rotation; parallel translation; composition of enlargement and reduction/rotation/parallel translation; affine conversion; projection; and parabolic conversion.

Claim 38 (New): The method according to claim 2, wherein the obtaining comprises: obtaining one of following conversion parameters $a_0, a_1, a_2, a_3, a_4, a_5, a_6, a_7, a_8, a_9, a_{10}, a_{11}$: $x' = a_0 x, y' = a_0 y$; $x' = x \cos a_0 - y \sin a_0, y' = x \sin a_0 + y \cos a_0$; $x' = x + a_0, y' = y + a_1$; $x' = a_0 x + a_1 y + a_2, y' = a_1 x - a_0 y + a_3$; $x' = a_0 x + a_1 y + a_2, y' = a_3 x + a_4 y + a_5$; $x' = (a_0 x + a_1 y + a_2) / (a_3 x + a_4 y + 1), y' = (a_5 x + a_6 y + a_7) / (a_3 x + a_4 y + 1)$; and $x' = a_0 x^2 + a_1 xy + a_2 y^2 + a_3 x + a_4 y + a_5, y' = a_6 x^2 + a_7 xy + a_8 y^2 + a_9 x + a_{10} y + a_{11}$, where x, y denotes coordinates in the reference object region, and x', y' denotes the coordinates in the object region in the non-reference frame.

Claim 39 (New): The method according to claim 2, wherein the describing comprises:
describing the object region data using an identifier and a value of the approximate function parameter.

Claim 40 (New): The method according to claim 2, wherein
the specifying comprises specifying an approximate figure of the reference object
region; and
the describing comprises a figure type and coordinates of representative points of the
approximate figure.

Claim 41 (New): The method according to claim 2, wherein the specifying
comprises:
specifying one of the first frame and a central frame of the plurality of frames as the
reference frame.

Claim 42 (New): The method according to claim 2, further comprising describing
related information related to the object region, the related information comprising at least
one of text information, sound information, still image information, moving image
information, a program, and an address for obtaining information relating to the object
region.

Claim 43 (New): The method according to claim 6, wherein the obtaining comprises:
obtaining a conversion parameter of one of enlargement/reduction; rotation; parallel
translation; composition of enlargement and reduction/rotation/parallel translation; affine
conversion; projection; and parabolic conversion.

Claim 44 (New): The method according to claim 6, wherein the obtaining comprises:
obtaining one of following conversion parameters $a_0, a_1, a_2, a_3, a_4, a_5, a_6, a_7, a_8, a_9,$
 a_{10}, a_{11} : $x' = a_0 x, y' = a_0 y; x' = x \cos a_0 - y \sin a_0, y' = x \sin a_0 + y \cos a_0; x' = x + a_0, y' = y + a_1;$

$$x'=a_0x+a_1y+a_2, y'=a_2x-a_0y+a_3; x'=a_0x+a_1y+a_2, y'=a_3x+a_4y+a_5;$$

$$x'=(a_0x+a_1y+a_2)/(a_3x+a_4y+1), y'=(a_5x+a_6y+a_7)/(a_3x+a_4y+1); \text{ and } x'=a_0x^2+a_1$$

$xy+a_2y^2+a_3x+a_4y+a_5, y'=a_6x^2+a_7xy+a_8y^2+a_9x+a_{10}y+a_{11}$, where x, y denotes coordinates in the reference object region, and x', y' denotes the coordinates in the object region in the non-reference frame.

Claim 45 (New): The method according to claim 6, wherein the describing comprises:

describing the object region data using an identifier and a value of the approximate function parameter.

Claim 46 (New): The method according to claim 6, wherein the specifying comprises specifying an approximate figure of the reference object region; and

the describing comprises a figure type and coordinates of representative points of the approximate figure.

Claim 47 (New): The method according to claim 6, wherein the specifying comprises:

specifying one of the first frame and a central frame of the plurality of frames as the reference frame.

Claim 48 (New): The method according to claim 6, further comprising describing related information related to the object region, the related information comprising at least one of text information, sound information, still image information, moving image

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information, a program, and an address for obtaining information relating to the object region.